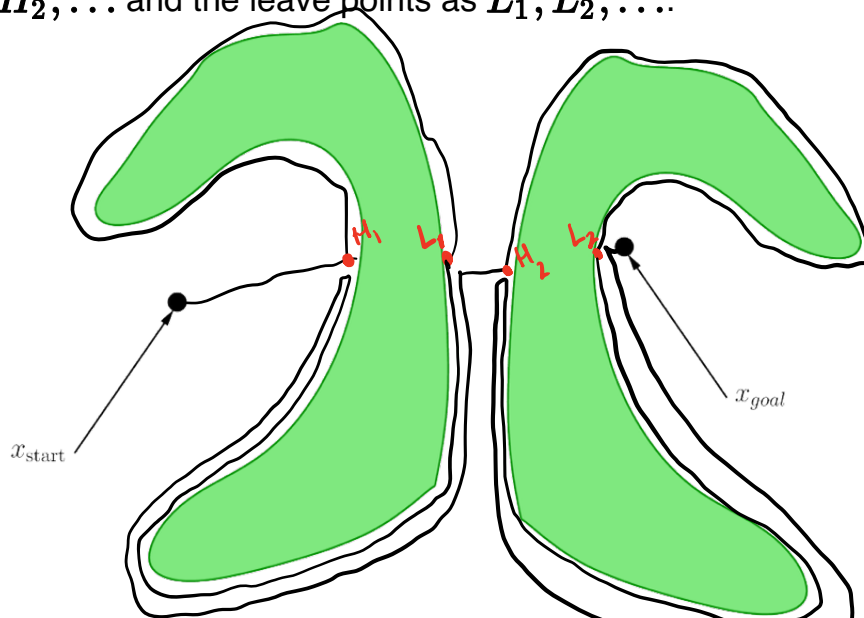


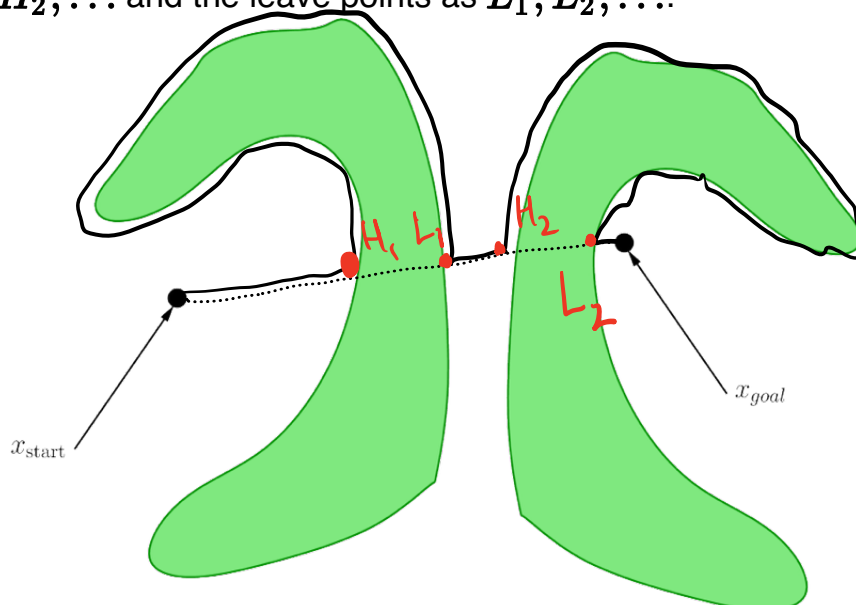
Homework 04

Your mobile robots wants to travel from x_{start} to x_{goal} in the environment below.

1. **Show** the path that would be followed if the robot executed the Bug1 algorithm for this navigation task. Draw neatly, especially if the path overlaps itself, so that your answer is unambiguous. **Label** the hit points as $H_1, H_2, \dots$ and the leave points as $L_1, L_2, \dots$.



2. **Show** the path that would be followed if the robot executed the Bug2 algorithm for this navigation task. Draw neatly, especially if the path overlaps itself, so that your answer is unambiguous. **Label** the hit points as $H_1, H_2, \dots$ and the leave points as $L_1, L_2, \dots$.



3. ~~Would the potential field method be a good choice for this problem?~~

~~Answer yes or no and explain why or why not.~~

4. Would the visibility graph method be a good choice for this problem?

Answer yes or no and **explain** why or why not.

No because visibility graphs are, by construction, very unsafe.